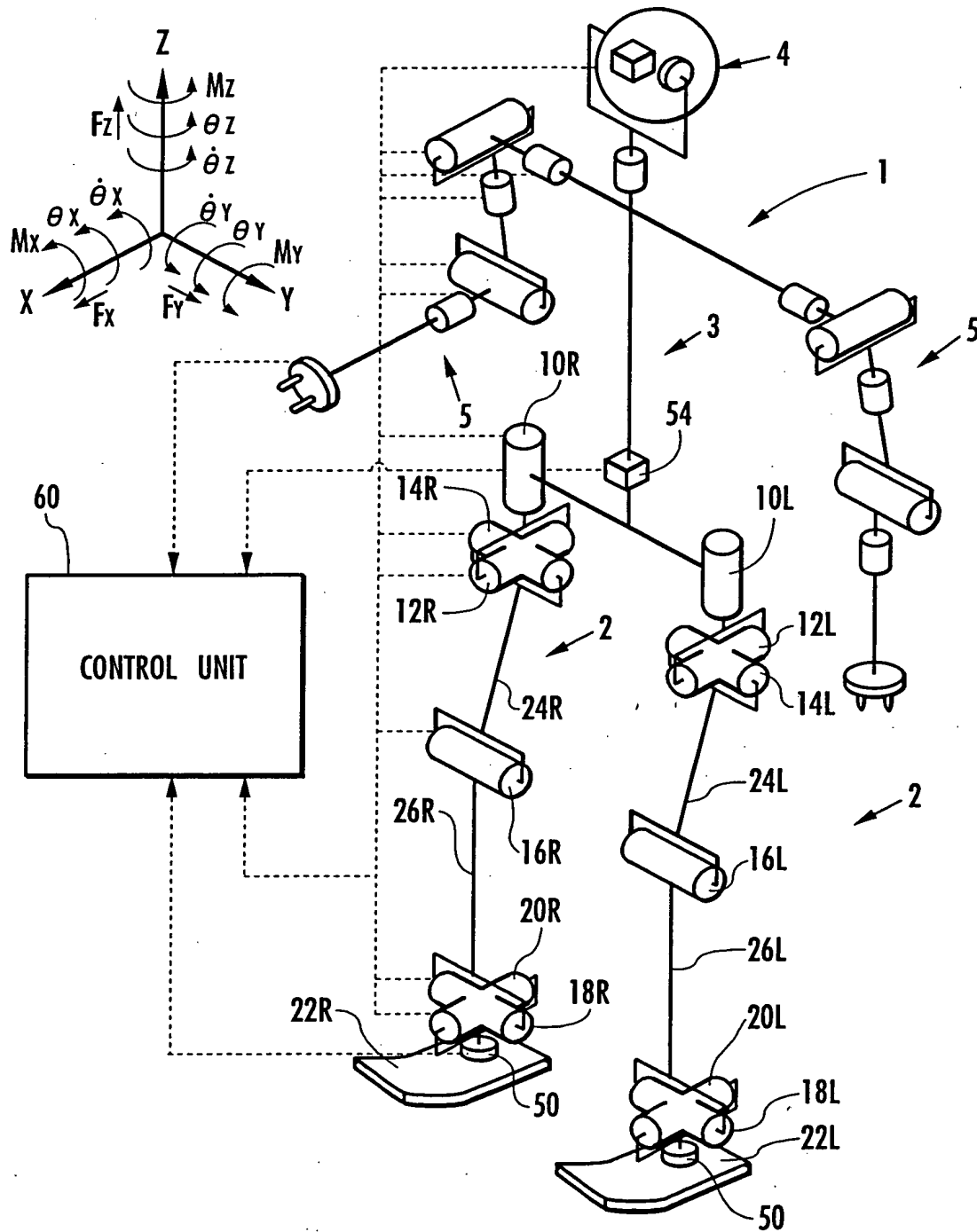


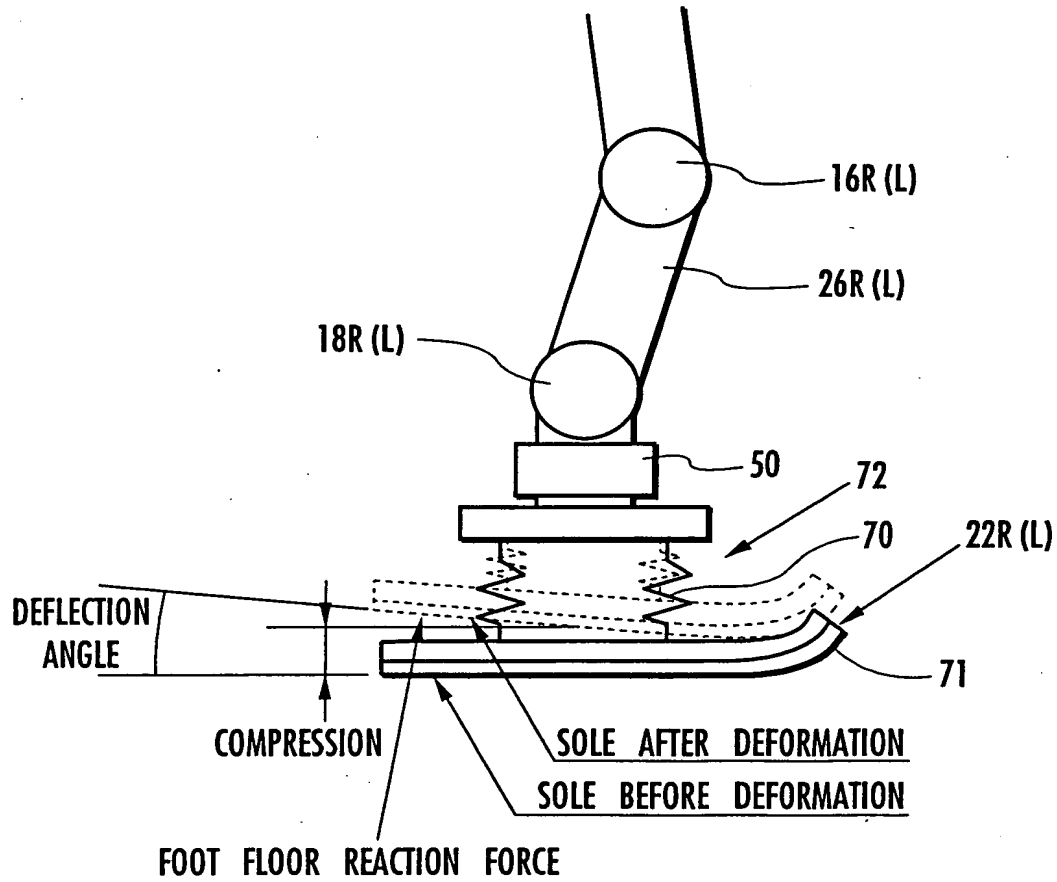
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FIG. 1



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FIG. 2



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FIG. 3

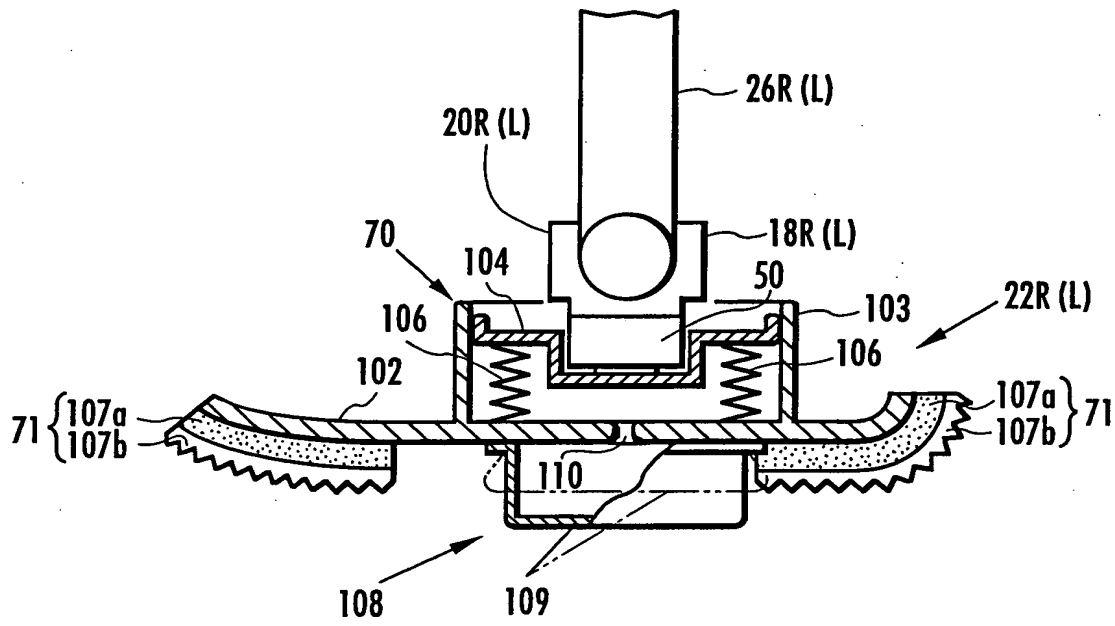
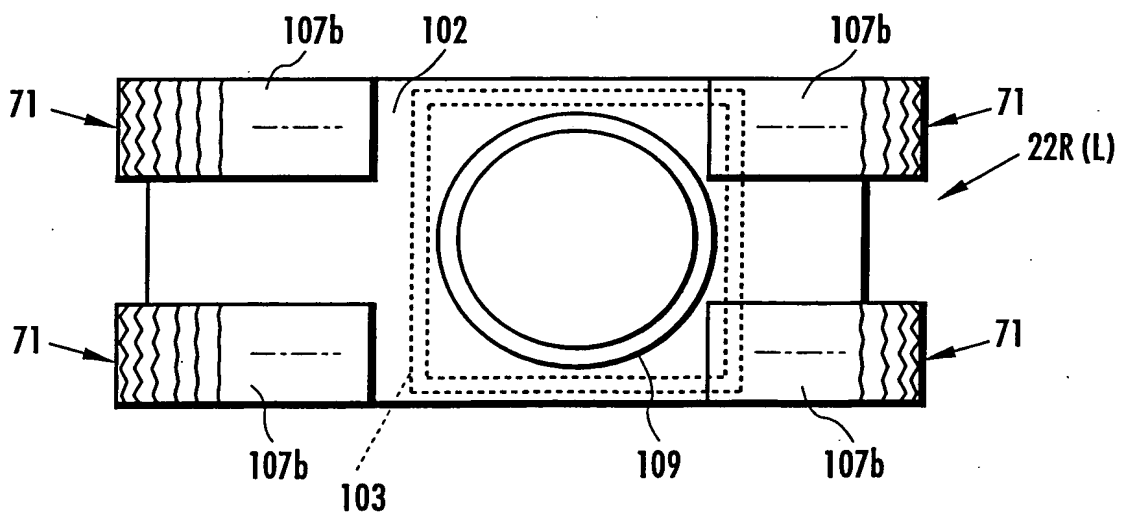


FIG. 4



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FIG. 5

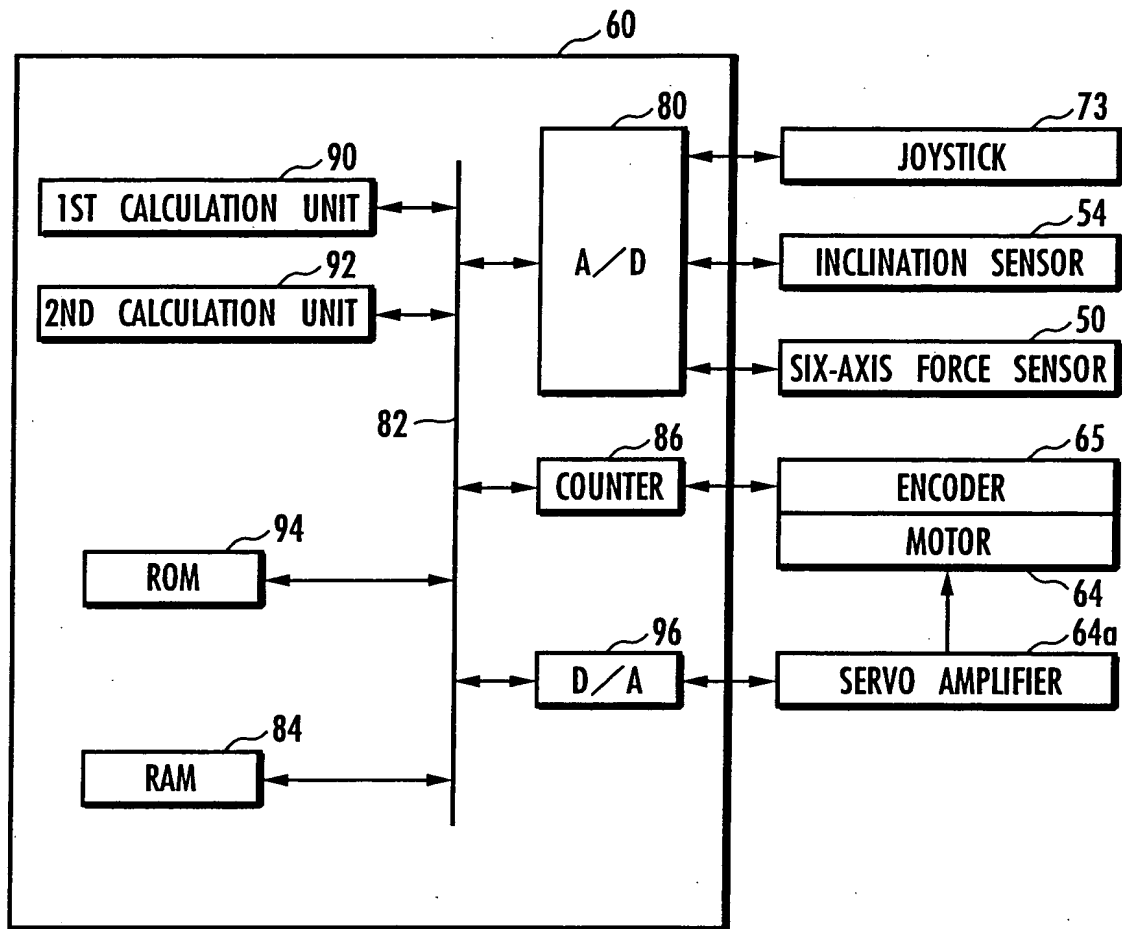
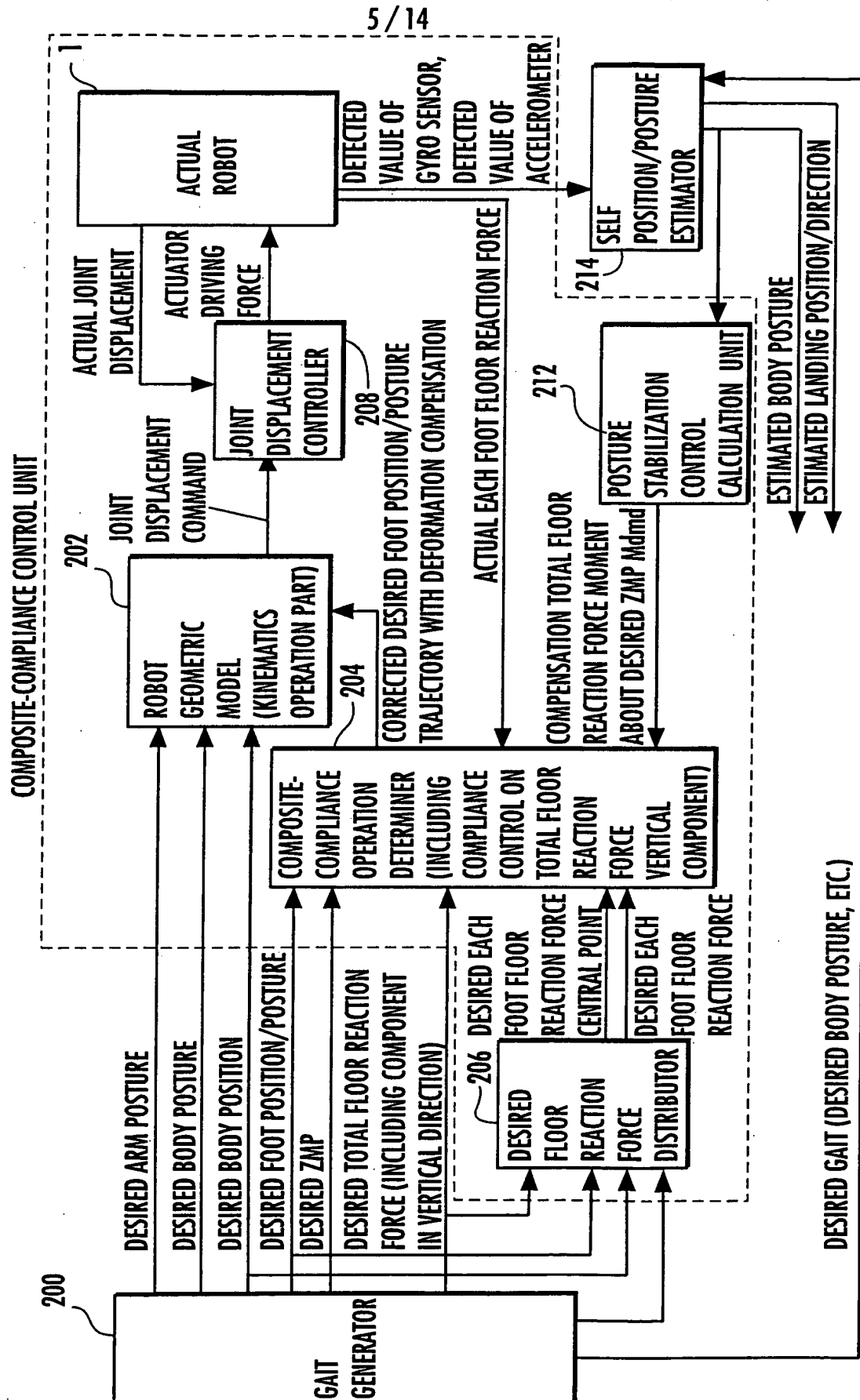
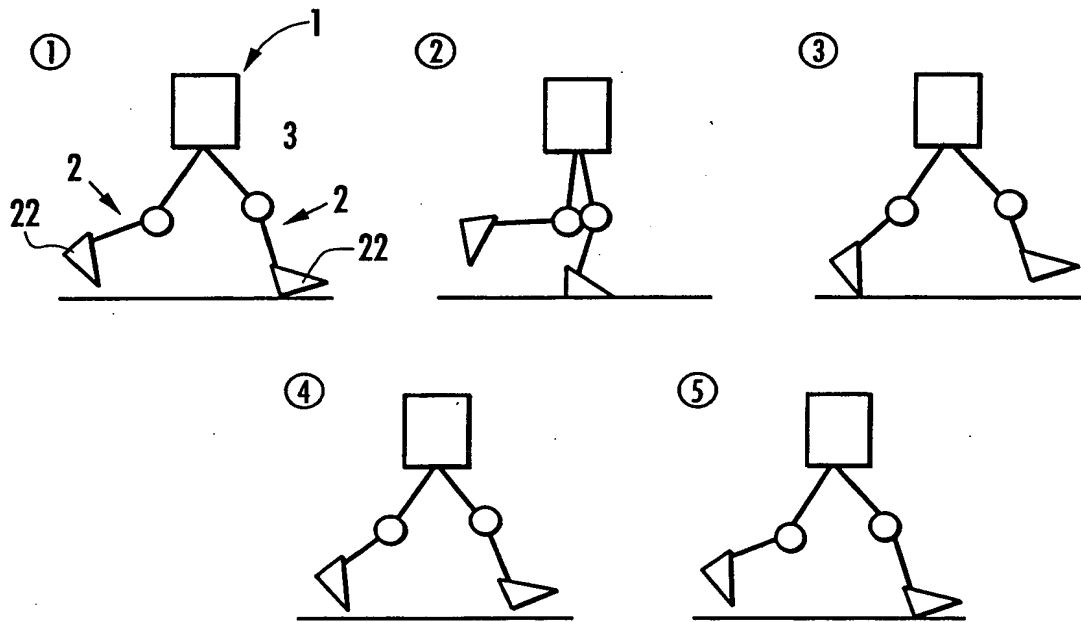


FIG. 6



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FIG. 7



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FIG.8 (a)

FLOOR REACTION FORCE VERTICAL COMPONENT

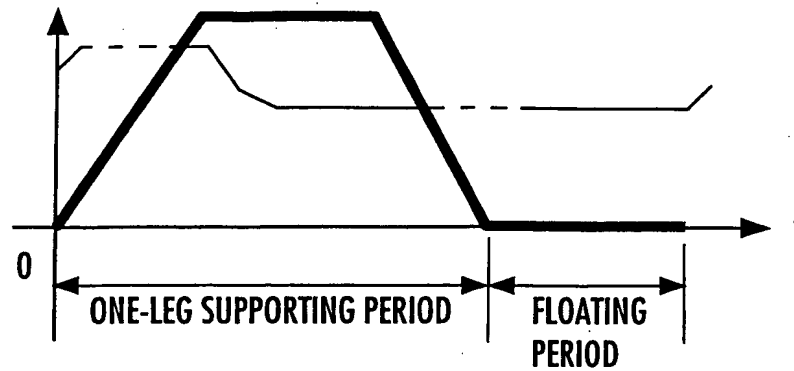


FIG.8 (b)

X COMPONENT OF DESIRED ZMP

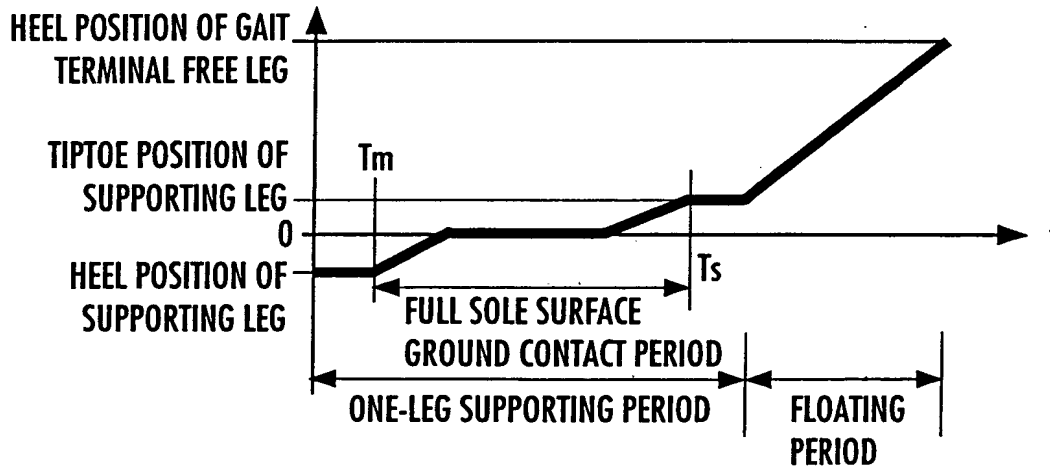
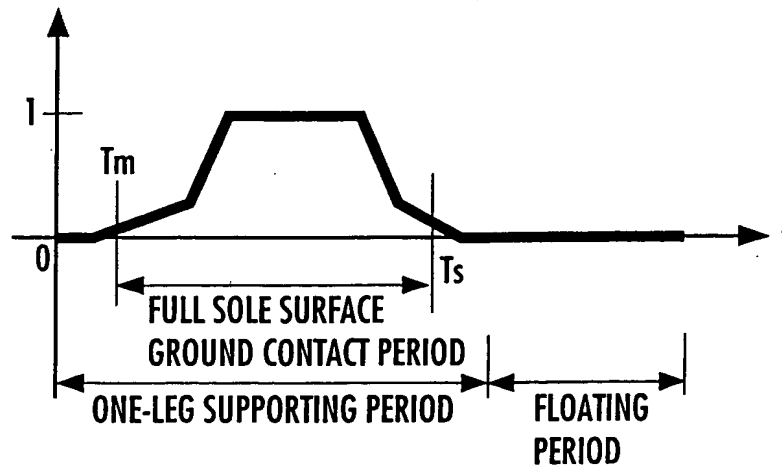


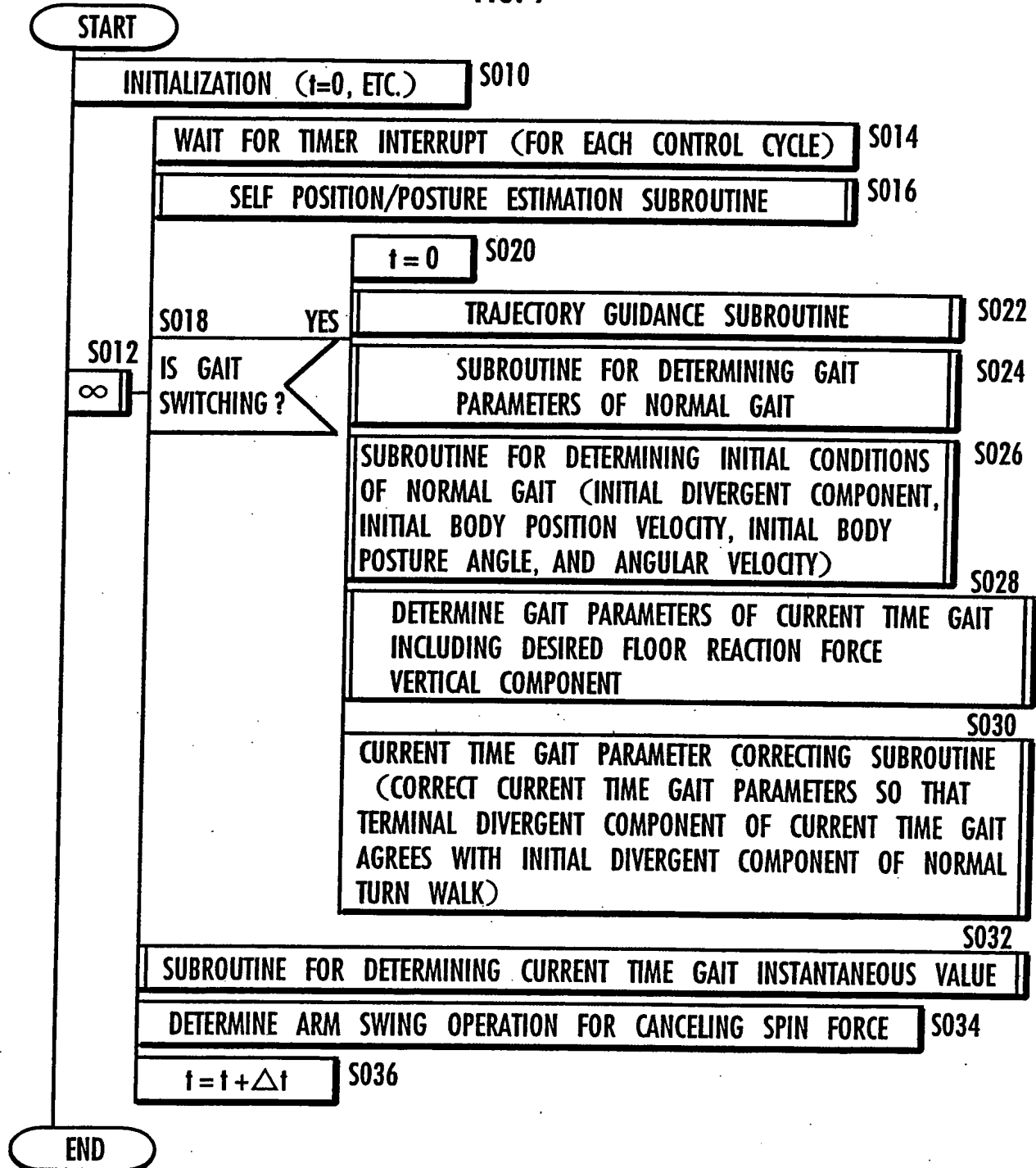
FIG.8 (c)

CORRECTION GAIN K (REPRESENTING K_a , K_b , K_c , AND K_d)



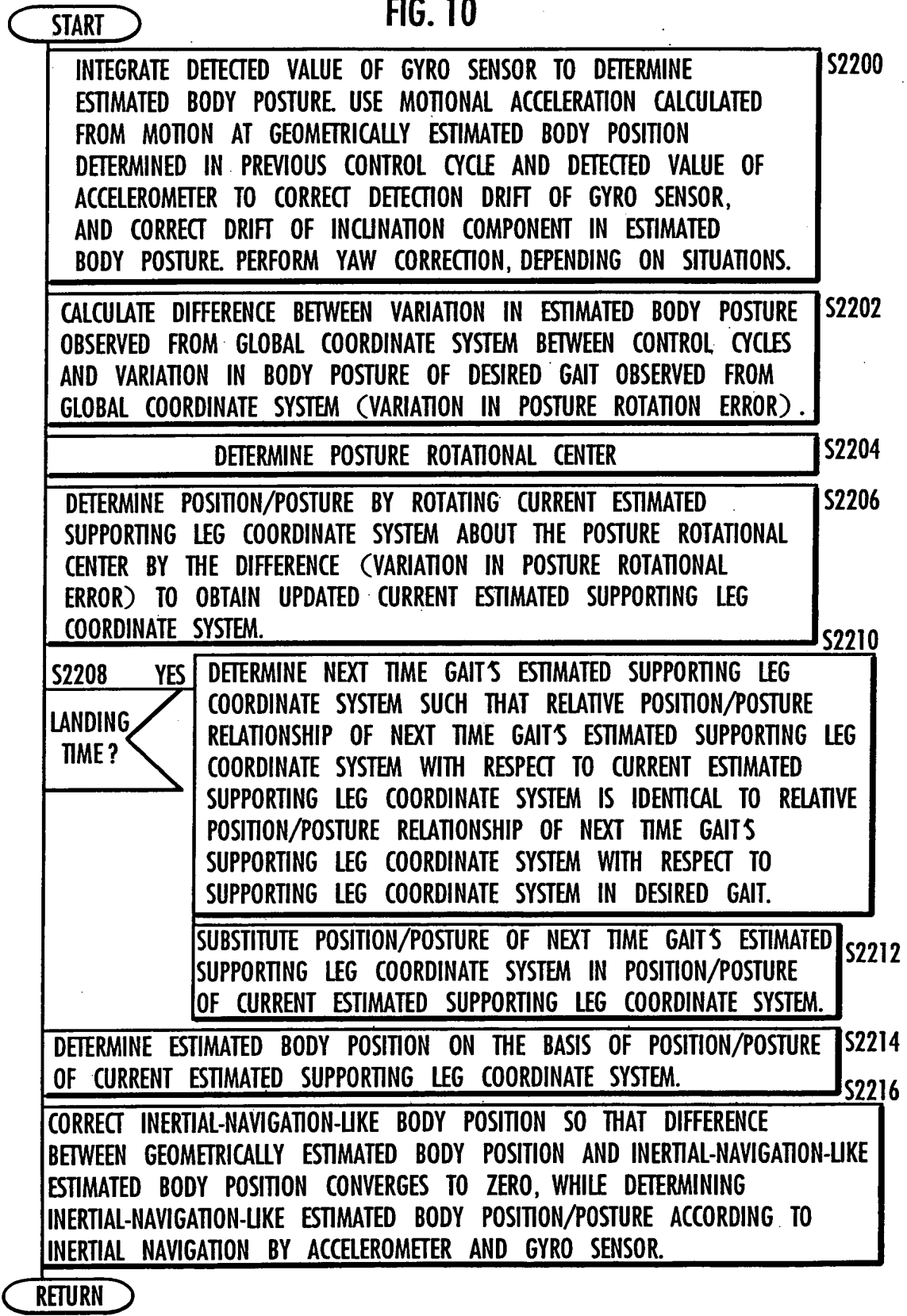
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FIG. 9



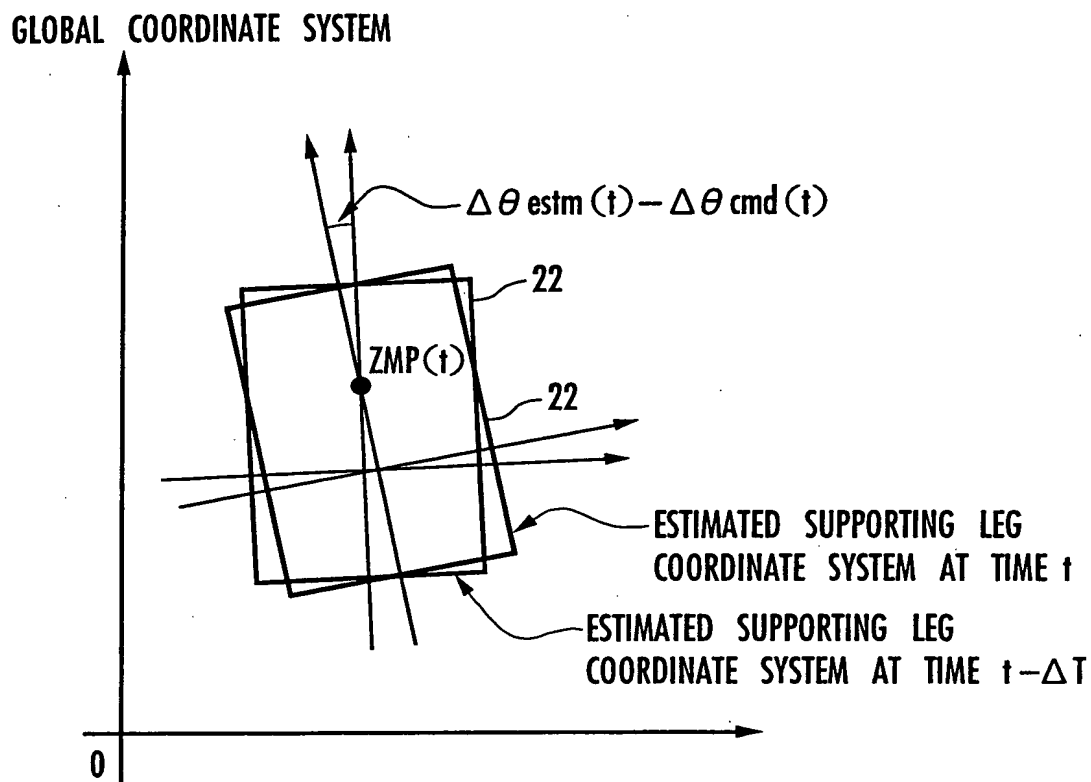
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FIG. 10



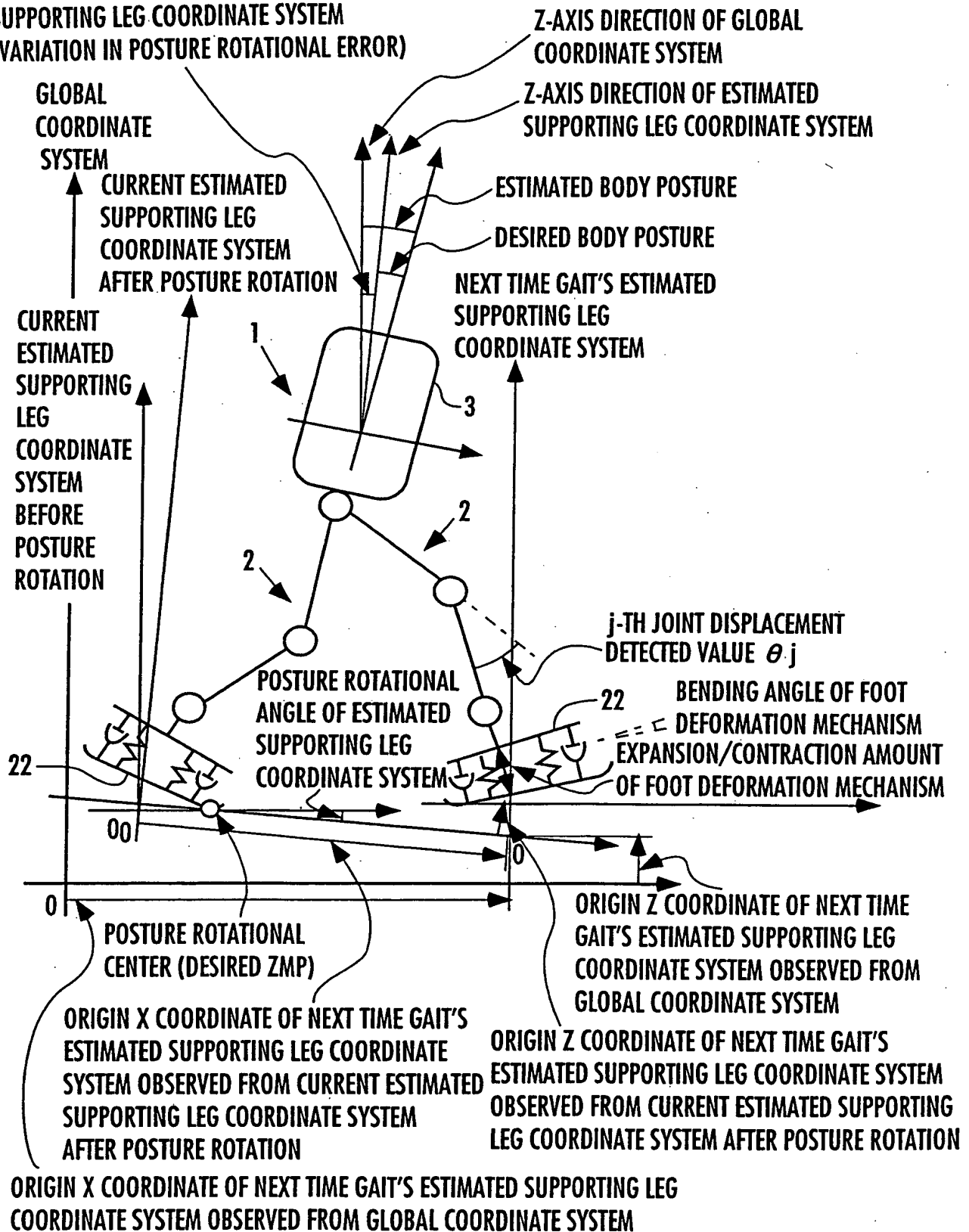
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FIG. 11

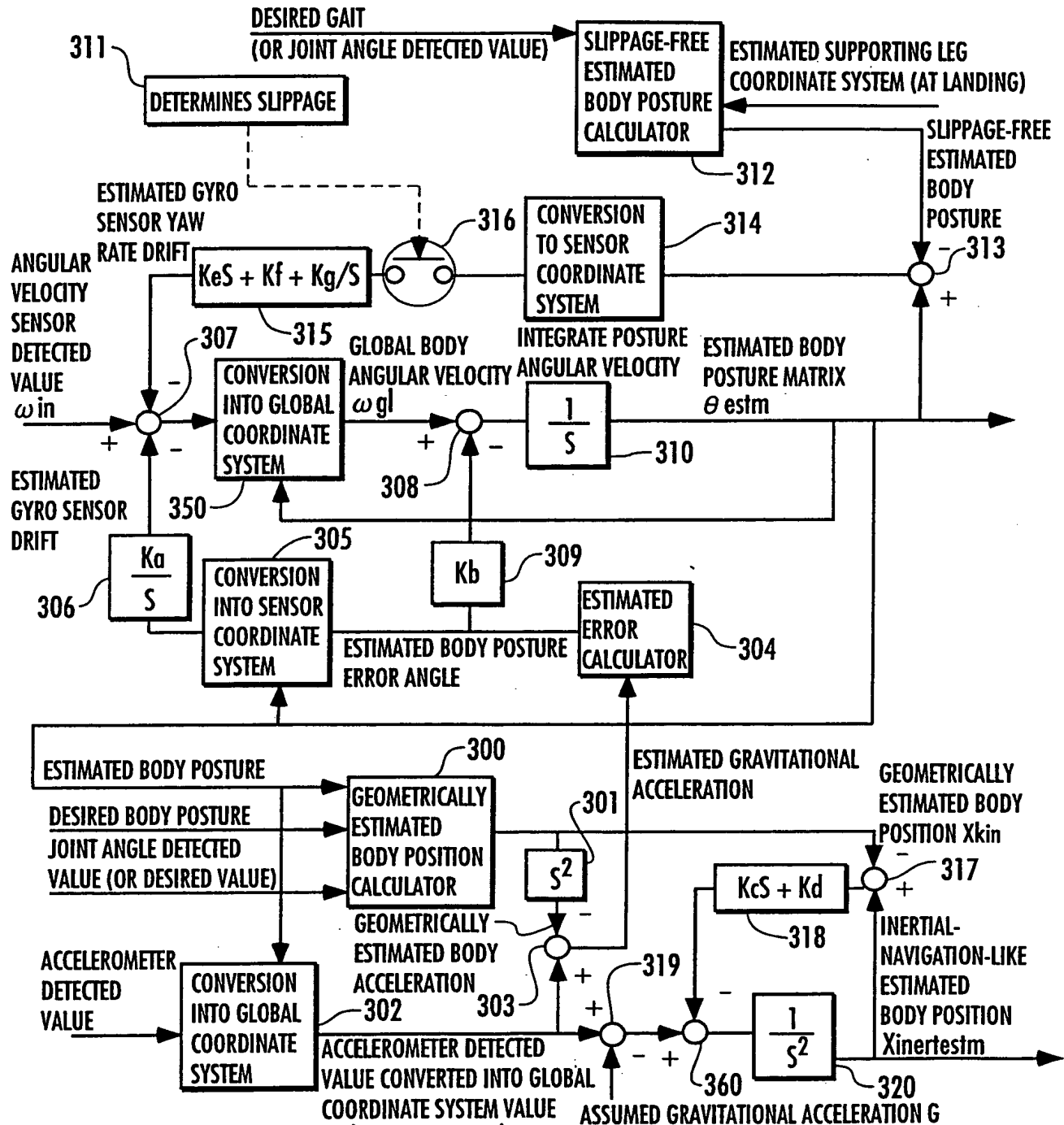


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FIG.12

POSTURE ROTATIONAL ANGLE OF ESTIMATED
SUPPORTING LEG COORDINATE SYSTEM
(VARIATION IN POSTURE ROTATIONAL ERROR)



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FIG.13



$$K_a = \begin{pmatrix} K_{ax} & 0 & 0 \\ 0 & K_{ay} & 0 \\ 0 & 0 & 0 \end{pmatrix}$$

$$K_b = \begin{pmatrix} K_{bx} & 0 & 0 \\ 0 & K_{by} & 0 \\ 0 & 0 & 0 \end{pmatrix}$$

$$G = \begin{pmatrix} 0 \\ 0 \\ g \end{pmatrix}$$

$$K_c = \begin{pmatrix} K_{cx} & 0 & 0 \\ 0 & K_{cy} & 0 \\ 0 & 0 & K_{cz} \end{pmatrix}$$

$$K_d = \begin{pmatrix} K_{dx} & 0 & 0 \\ 0 & K_{dy} & 0 \\ 0 & 0 & K_{dz} \end{pmatrix}$$

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FIG.14 (a)

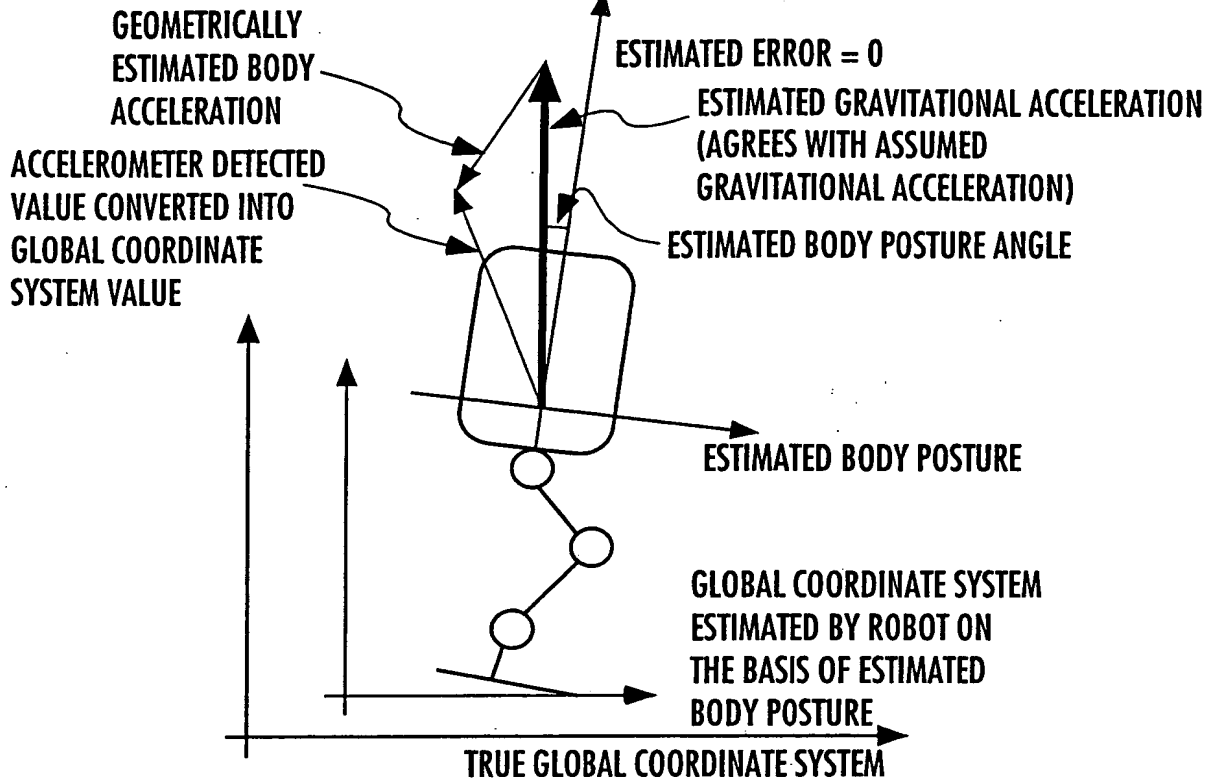
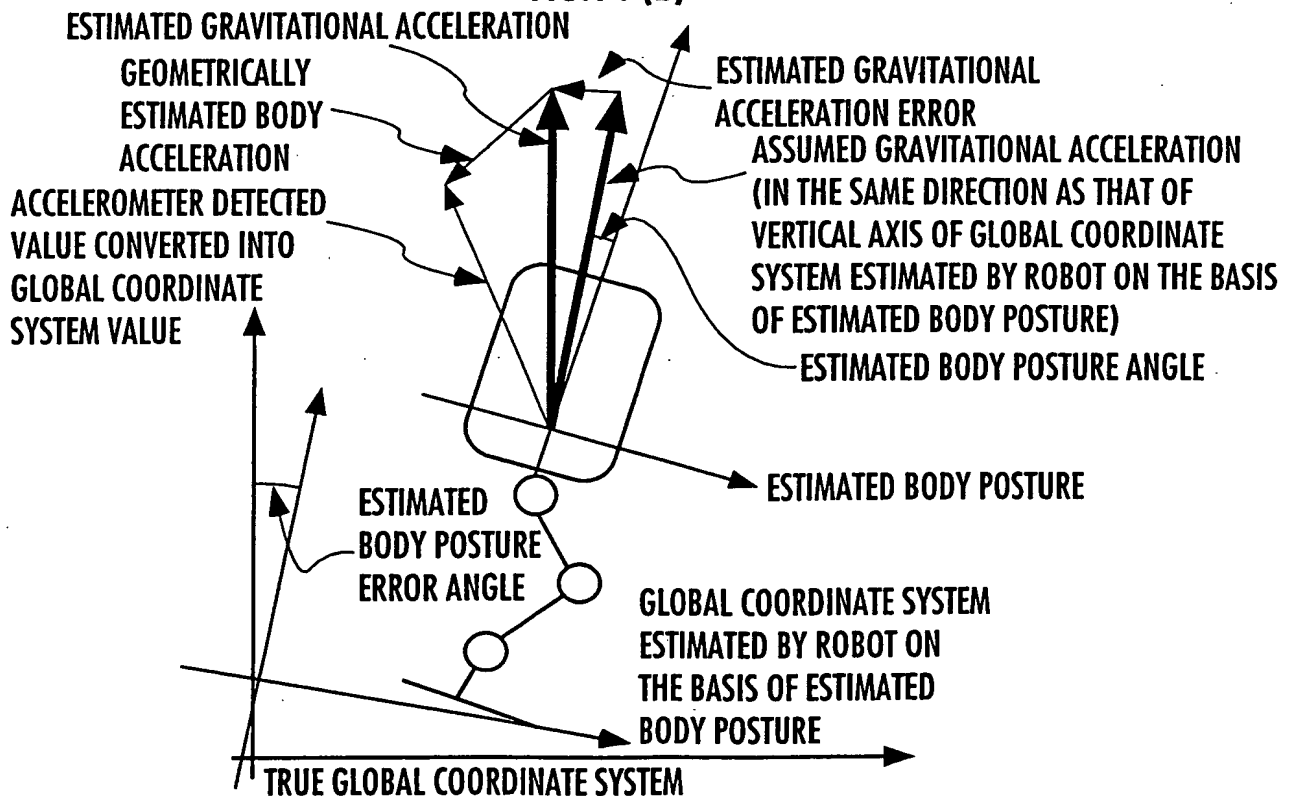


FIG.14 (b)



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FIG. 15

INTEGRATION GAIN K_a FOR
CORRECTING GYRO SENSOR DRIFT

